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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/535,629	03/24/2000	Jeffrey W. Scott	37398/SAH/C715	2082

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BARLOW, JOSEPHS & HOLMES, LTD.
101 DYER STREET
5TH FLOOR
PROVIDENCE, RI 02903

EXAMINER

NGUYEN, TUAN M

ART UNIT	PAPER NUMBER
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2828

DATE MAILED: 10/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/535,629

Applicant(s)

SCOTT, JEFFREY W.

Examiner

Tuan M Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7-23-2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 45-72 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 45-72 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.


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Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 45-50 and 67-69 are rejected under 35 U.S.C. 102(a) as being anticipated by Jian (US patent 6,328,482).

With respect to claims 45 and 48, figure 6 shows an optical fiber transmitter comprising VCSEL (600) integrated with a fiber coupler in as single structure; a substrate with electrical interconnect (630, 640); VCSEL (600) includes a surface normal optical device on said substrate; optical fiber transmitter device comprising a plurality of layers including an optical transparent (130, 140, 603), encapsulation medium matching layer said medium matching layer having a different of index of refraction n_1 and n_2 ; said medium matching layer having a predetermined thickness configured to adjust an optical characteristic of said opto-electronic device so as to make pre-encapsulation on wafer, test characteristic of said opto-electronic device substantially similar to post encapsulation functional characteristics note col. 10.

With respect to claim 46-47 and 49-50, figure 6 shows the optical device comprising a VCSEL (600).

With respect to claims 67-69, Kopf discloses a method of fabricating an encapsulated opto-electronic device having controlled characteristic, the method comprising the step of;

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fabricating an optoelectronic device; measuring a characteristic of said optoelectronic device; providing an encapsulation medium matching material having an index of refraction; determined a thickness of said encapsulation medium matching layer; deposited a layer of said encapsulation medium matching material onto said optoelectronic, wherein pre encapsulation, on wafer, test characteristics of said optoelectronic device are substantially similar to post encapsulation functional characteristics, note col. 6 line 16 to col. 9 line 24, see figures 1-4.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 51-66 and 70-72 are rejected under 35 U.S.C. 102(b) as being anticipated by Kopf et al (US patent 5,115,441).

With respect to claims 51, 59 and 70, Kopf et al discloses a VCSEL structure (10) comprising a substrate (12), a first mirror (13) overlying said substrate, an active optical region (15) overlying said first mirror; a second mirror overlying said active optical region; and an optical transparent (23), encapsulation medium matching layer deposited into said VCSEL structure and overlying said second mirror, said medium matching layer having different index of refraction; said medium matching layer having a predetermined thickness configured to adjust a reflectivity of said second mirror so as to make pre-encapsulation on wafer test

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characteristic of said VCSEL structure substantially similar to post encapsulation functional characteristics, note col. 3 line 1 to col. 8 line 14, see fig.1.

With respect to claims 52-58, 60-66 and 71-72, Kopf et al discloses tuning layer is one of a plurality of layers of a distributed Bragg reflector lying between said second mirror and said medium matching layer; DBR comprises alternating layers of oxides and nitride, note col. 3 line 1 to col. 8 line 14, see figs.1-5.

Response to Arguments

3. Applicant's arguments with respect to claims 45-72 have been considered but are moot in view of the new ground(s) of rejection.

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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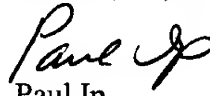
Communication Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan M Nguyen whose telephone number is (703) 306-0247.

The examiner can normally be reached on 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (703) 308-3098. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3329.


Paul Ip
SPE
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TMN
September 26, 2003